

WHAT IS CLAIMED IS

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3 1. A fixed length line trimmer head for string trimmer  
4 machines using line segments of a predetermined length including in  
5 combination:

6 a central generally cylindrical hub having an upper end  
7 and a lower end, with the upper end thereof configured for  
8 attachment to a drive shaft of a string trimmer machine;

9 a circular flange attached adjacent the lower end of the  
10 central hub and extending outwardly therefrom, the circular flange  
11 having at least one trimmer line exit opening on the circumference  
12 thereof;

13 line guide means on the circular flange between the line  
14 exit opening and an opening on a surface of the flange; and

15 means for effecting frictional engagement between the  
16 line guide means and one or the other of the hub and a location on  
17 the circular flange offset from the line guide means.  
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1           2.    A fixed length line trimmer head for string trimmer  
2 machines using line segments of predetermined length including in  
3 combination:

4               a central cylindrical hub configured for attachment to a  
5 drive shaft of a string trimmer machine;

6               a circular flange attached to and extending outwardly  
7 from the central hub, the flange having at least one trimmer line  
8 exit opening on the circumference thereof;

9               line termination apertures on one or the other of the hub  
10 and the flange offset from the trimmer line exit openings for  
11 insertion of an end of a length of trimmer line therein; and

12              a line guide means on the flange located between at least  
13 one line exit opening and the line termination apertures.

14           3.    The trimmer head according to Claim 2 wherein the line  
15 termination apertures comprise sets of apertures of different  
16 diameters.

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18           4.    The trimmer head according to Claim 3 wherein the central  
19 hub has a circular longitudinal axis and a offset shoulder thereon,  
20 and the line termination apertures are located on the shoulder and  
21 extend generally parallel to the longitudinal axis of the central  
22 hub.

1           5. The trimmer head according to Claim 3 wherein the at least  
2 one trimmer line exit opening includes spaced exit openings located  
3 on the circular flange, and the line termination apertures include  
4 at least two line termination apertures of different sizes  
5 associated with each of the line exit openings.

6           6. The trimmer head according to Claim 5 wherein the hub has  
7 a longitudinal axis, further including at least two diametrically  
8 opposed longitudinal flanges on the central hub extending generally  
9 parallel to the longitudinal axis of the central hub and wherein  
10 the line termination apertures are located in the longitudinal  
11 flanges.

12           7. The trimmer head according to Claim 6 wherein the line  
13 termination apertures extend through the longitudinal flanges.  
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15           8. The trimmer head according to Claim 1 wherein the line  
16 termination apertures are formed in the circular flange at a  
17 location offset from the line exit openings in the circular flange.  
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19           9. The trimmer head according to Claim 8 wherein the line  
20 termination apertures are oriented substantially parallel to the  
21 exit openings on the circumference of the circular flange.  
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1           10. The trimmer head according to Claim 2 wherein the at  
2 least one trimmer line exit opening includes spaced exit openings  
3 located on the circular flange, and the line termination apertures  
4 include at least two line termination apertures of different sizes  
5 associated with each of the line exit openings.

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7           11. The trimmer head according to Claim 2 wherein the central  
8 hub has a circular longitudinal axis and a offset shoulder thereon,  
9 and the line termination apertures are located on the shoulder and  
10 extend generally parallel to the longitudinal axis of the central  
11 hub.

12           12. The trimmer head according to Claim 2 wherein the hub has  
13 a longitudinal axis, further including at least two diametrically  
14 opposed longitudinal flanges on the central hub extending generally  
15 parallel to the longitudinal axis of the central hub and wherein  
16 the line termination apertures are located in the longitudinal  
17 flanges.

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19           13. The trimmer head according to Claim 12 wherein the line  
20 termination apertures extend through the longitudinal flanges.  
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1           14. A fixed line trimmer head for string trimmer machines  
2 using line segments of a predetermined length including in  
3 combination:

4           a central cylindrical hub configured for attachment to a  
5 drive shaft of a string trimmer machine;

6           a circular flange attached to and extending outwardly  
7 from the central hub, the flange having trimmer line exit openings  
8 angularly spaced about the circumference thereof;

9           means on the central hub for guiding a string trimmer  
10 line from one of the exit openings on the circular flange to  
11 another of the exit openings over a generally U-shaped path  
12 designed to resist pulling of a line segment out of the line exit  
13 openings on the circular flange.

14           15. The trimmer head according to Claim 14 wherein the means  
15 for guiding the line on the central hub comprises a portion of the  
16 periphery of the hub.

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18           16. The trimmer head according to Claim 15 further including  
19 at least one outwardly extending ear on the central hub with the  
20 ear having an aperture therethrough extending substantially  
21 parallel to the plane of the circular flange and located in a plane  
22 offset from the plane of the circular flange for guiding a line  
23 from an exit opening on one side of the circular flange through the  
24 opening in the ear to the exit opening on the diametrically  
25 opposite side of the circular flange to cause a line to assume a  
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(Claim 16 continued)

generally U-shaped bight intermediate the exit openings on the circumference of the circular flange.